Clinical Section

Injuries of the Heart

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Until relatively few years ago injuries to the heart were usually assumed to be due to laceration of the heart muscle by fractured ribs, or penetrating wounds by foreign bodies such as knife or bullet. Gradually some observers began to realize that injury to the heart could be caused indirectly by strain, or trauma to the outside of the chest.

In 1927 Kahn and Kahn of New York, who were among the pioneers in this field, published an article on "Heart Strain and its Industrial Aspects." They pointed out that the symptoms of acute heart strain occurred immediately after some strenuous work and were: intense and constricting pain, weakness, dyspnoea, and palpitation. The pulse was usually found to be small and fast and perhaps irregular. Other findings on examination varied with the pre-existing heart lesion.

A year later Kahn and Kahn (1928) wrote at length on the subject of cardiovascular lesions following injury to the chest. They showed that even blows on the chest could cause myocardial damage, auricular fibrillation, rupture of valve cusps or chordae tendinae, or even pericardial involvement. They felt that the symptoms practically always occurred soon after the injury. They established the following criteria:

1. "If, following direct or indirect violence to the chest, signs of an intrathoracic cardiovascular lesion develop, which are incapacitating, they must be considered the result of an aggravation of a previously existing asymptomatic lesion, or the result of damage to a previously normal heart."
2. "As in heart strain the time that elapses between the accident and the development of disabling symptoms is very short; there must be immediate pain with its concomitants—dyspnoea, rapid irregular pulse, faintness, and immediate partial or total disability."

In spite of these papers and others the general recognition of this indirect form of cardiac injury was slow and in 1933 the J.A.M.A. answered a question as follows: "Traumatic myocarditis is one of those indefinite terms that is best not used at all and there is no literature of scientific value on the subject."

Bright and Beck in 1935, after studying a number of cases of heart injury caused by non-penetrating wounds, decided that in milder cases of contusion the onset of symptoms might be delayed. The progress of a cardiac contusion might be in any one of four ways—

1. The symptoms may disappear hours or days after the accident and the patient may remain well.
2. The symptoms may persist for years and be accentuated by exercise.
3. The heart may fail hours or days after the accident.
4. The contusion may soften and rupture take place.

Schleiter in 1937 discussed several cases of cardiac contusion. He found the symptoms to be chest pain, dyspnoea and palpitation, and the physical findings of note were pericardial friction rub or bloody pericardial effusion, distant heart sounds or arrhythmias. His principal conclusion was that "a patient who has been in previously good health, who suffers direct or indirect trauma to the chest and who then develops signs of circulatory embarrassment should be tentatively considered as having sustained a cardiac injury unless further evidence points to a more probable diagnosis. This is particularly true when rapidity or irregularity of the pulse or dyspnoea or pain come on immediately or very soon after an accident in one who has previously had no cardiac symptoms."

Paul White in his latest book on heart disease (1937) mentions the "steering wheel" injury often sustained by car drivers and states that it is a fairly common cause of contusion of the heart. He emphasizes the importance of having electrocardiographs done after every thoracic injury. He thinks that as a rule heart symptoms and signs following industrial strain or accident are those of neuro-circulatory asthenia or neurosis in sensitive individuals or due to precipitation or aggravation of trouble in a heart already diseased. White also makes what appears to be an excellent suggestion—that all industrial employees should have a yearly routine cardiovascular examination. This would not only be of value in assessing changes occurring after accidents but it would enable those employees with cardiovascular disease or arteriosclerosis to be placed in safer and perhaps less hazardous employment.

Levine in his 1940 edition of Clinical Heart Disease has a short chapter devoted to the medicolegal aspects of heart disease. He emphasizes

the time relation between the accident and the cardiac abnormality and points out that if the exact status of the patient before the accident is known it is reasonable to assume that new subjective or objective disability occurring within minutes, hours, or several days, is due to the accident. Therefore, it is very important for the physician examining after an accident to record the heart rate and rhythm, blood pressure, etc., and to have an electrocardiograph as soon as possible.

The time element is also important when considering the aggravation of a pre-existing condition. If new symptoms or findings develop a few hours or days after an accident where the clinical condition previously appears to have been stationary, it is fair to assume that some aggravation has occurred.

Summary:

It is recognized that damage to the heart may be caused by an injury (blow or crushing) to the chest wall, or by a severe physical strain. This may be serious enough to cause death or the individual may live with a permanent cardiac disability or it may be recovered from completely.

The symptoms of cardiac damage usually appear very soon—within a few days of the injury—although there undoubtedly are mild degrees of contusion or pericardial involvement which develop more slowly.

A normal cardiovascular system may suffer as well as one which is previously diseased. In the latter there has probably been an aggravation of a pre-existing condition.

Careful recording of blood pressure and heart rate and rhythm should be done immediately after chest injuries and if possible an electrocardiographic tracing made. These might be of great value in a future check of the progress of the individual.

The evaluation of the degree of heart damage caused by any specific accident will always be difficult, and will always require careful consideration and correlation of the symptoms, the physical findings, and the subsequent progress of the case.

The following case history illustrates a crushing injury of the chest which apparently resulted in myocardial damage.

Patient was a man aged 58, employed as a cooper in a local brewery. On August 25th, 1941, while at work, he attempted to squeeze between several tanks. He was a large man, the space was small, and he felt at the time that he had hurt his chest. The following day the soreness in the chest was worse but he kept working till August 29th, when he saw his doctor and was placed in hospital. His heart was irregular and two days later the legs began to swell.

On examination September 9th, 1941, it was further ascertained that he had always been in good health, had missed only an occasional day's work in 20 years, and that before his accident he could run up four or five flights of stairs without undue dyspnoea. Since then he could do nothing.

Physical examination at this time revealed marked edema of lower extremities and sacral area. The heart was extremely rapid and irregular (fibrillating). Electrocardiograph confirmed the fibrillation.

It was felt that he had undoubtedly experienced a cardiac injury—possibly a contusion—but that the prognosis with adequate rest and digitalis should be good. He was sent home to bed under the care of his doctor.

The Workmen's Compensation Board recognized the claim. Subsequently he returned to work on October 14th, 1941, much improved and continued until March 24th, 1942, when he died quite suddenly.

An autopsy was performed and a huge heart was found. It was concluded death had been due to heart failure.

Rose Hips for Oranges

Nine British factories turn 200 tons of them into syrup.

Two hundred tons of rose hips gathered from the hedges of England and Scotland last autumn have been turned into syrup for the older children in Britain who cannot get a regular supply of oranges.

Like the orange, rose hips are a rich source of vitamin 'C," the anti-scurvy vitamin.

Before the war it never occurred to anybody to use rose hips, but when the supply of oranges dwindled a small army of Boy Scouts, Girl Guides, teachers and Women's Institute members turned out into the lanes with their baskets.

Even housewives who were expert jam makers found it difficult to keep the hip hairs out of the syrup and the hips were therefore sent off to nine factories which have now produced from them 600,000 bottles of syrup. Young children are sipping it with relish at the rate of one teaspoonful a day. Two teaspoonsful in the twenty-four hours give all the vitamin C which older boys and girls require.

Britain's Ministry of Health are so pleased with the result that they are hoping for a much bigger collection of rose hips when autumn comes round again.

Editorials and Association Notes

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Editorial Office

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Executive Meeting

Excerpts from a meeting of the Executive of the Manitoba Medical Association on Monday, March 6th, 1942:

Dr. G. S. Fahrni, President of the Canadian Medical Association, and Dr. T. C. Routley, General Secretary of the C.M.A., were guests of the meeting, and spoke, in part, as follows:

Dr. G. S. Fahrni: There are nine divisions in the Canadian Medical Association and we feel that we should have 100% membership from every Division. The situation in the Quebec Division is that some 50-60 French medical men belong to the Association out of some 2000 practicing in that province. We therefore do not represent French Canada at all and we are suffering now from this so far as getting acknowledgment from the Government is concerned.

As most of you know, Alberta has 100% membership. This was done by statute. Late last fall, Ontario made a forward step: they decided that before a man could belong to the Ontario Division, he must also be a member of the Canadian Medical Association. They also, now have a joint fee of $15.00. When I came back from the Executive meeting in January I contacted British Columbia, Alberta and Manitoba, telling them what Ontario had done. The Saskatchewan Division has gone on record as in favour of such a fee and they are now submitting it to each of their ten district societies. Our general secretary has just returned from the Maritime Provinces, and he will tell you of the feeling down there. I would like later on to bring up the questionnaire.

Dr. T. C. Routley: I think you know without my saying so, that I am always glad of an opportunity of coming to Winnipeg and meeting the Executive of the Manitoba Division. A few weeks ago, the President of the Nova Scotia Division stated that their Division would like to know what is going on and they would like me to visit them. As is my duty, I informed my President and we arranged for me to go across Canada from the Atlantic to the Pacific. This gives me a great opportunity of mixing with the different Provincial Divisions of the Canadian Medical Association. Three weeks ago we had an executive meeting in Halifax at which there were 25 members present. During my three-day visit, we met with the Medical Economics Committee, and I came away from Halifax feeling that the Nova Scotia Division was 100% behind the Canadian Medical Association. You may be interested to know that 85% of Nova Scotia doctors belong to the Nova Scotia Division and all but three of these belong to the Canadian Medical Association.

I went into New Brunswick and found that it was an opportune time for a visit. They had come to some conclusions on the Health Insurance Questionnaire and were critical of the Canadian Medical Association, but on hearing my message they withdrew their criticisms.

In British Columbia, they have a compulsory fee, and every medical man belongs to the Canadian Medical Association. Prince Edward Island has lined up their whole Division and agree with the Canadian Medical Association activities.

• • •

At the last Executive Meeting of the Division, considerable discussion centred around the Canadian Medical Association's reaction to the proposed National Health Insurance Bill.

The eighteen points, which they have adopted as essential, were again reviewed. Your Executive was unanimous in disapproving of clause 12, sections C and D which read as follows:

(C) The medical service to be based upon making available to all a general practitioner service for health supervision and the treatment of disease.

(D) Additional services to be secured ordinarily through the medical practitioner.

(1) a. Specialist medical service;
b. Consultant medical service.

(2) Visiting nurse service (in the home).

(3) Hospital care.

(4) Auxiliary services—usually in hospital.

(5) Pharmaceutical service.

Last Fall in considering this same clause a motion was placed on the books that we favored co-operation of the medical profession with the Dominion Government in working out a Health Insurance programme but any plan instituted must not interfere with the free choice of doctor by the patient. A copy of this motion was sent to the General Secretary of the Canadian Medical Association in October, 1941.

Your Executive still feel that Sections C and D of clause 12 definitely violate the principle of free choice of doctor. A further resolution to this effect has been forwarded to the Canadian Medical Association.

The President of the Canadian Medical Association, Doctor G. S. Fahrni, is also opposed to these sections, but they were drafted four or five years ago and have been passed on as a legacy to the present officers of the Association. He is doing what he can to have this changed.

There is no doubt, however, that the clause needs clarifying. Your response to question twelve in the recent questionnaire reveals this, as the proportion of Yes to No was (c) 260 to 33 and (d) 237 to 52, and from conversation with many men in the profession, one must conclude that the clause has been interpreted in different ways.

It was decided to hold the annual meeting on September 23rd, 24th and 25th.

—H.D.K.

Annual Dues

The Executive of the M.M.A. wishes to urge upon every doctor the importance of immediately sending in his annual dues.

Vital changes in medical practice are in the making, changes affecting the bread and butter of every active practitioner. Whether these changes can be made in a manner that suits you depends directly on how well each one supports the Association.

United, we shape our own destiny. Divided, it is shaped for us by outside influences.

For your pocketbook's sake, insure your future by forwarding your dues to 102 Medical Arts Building NOW.

Manitoba Medical Service

A bill to incorporate Manitoba Medical Service was passed by the Manitoba Legislative Assembly at the close of its recent session. It is expected that the scheme will come into operation in September, but prior to that date it will be presented again to a general meeting of the profession. A sub-committee is now engaged in revising the schedule of fees. The Manitoba Medical Association has underwritten the scheme to the extent of $1,000.00 and the Winnipeg Medical Society will be responsible for $500.00. Individual physicians will also underwrite the scheme, as it is considered necessary to have at least $5,000.00 pledged before the service comes into effect.

Some members of the profession apparently hold the view that this plan of medical health insurance originated in the Committee of Economics of the Manitoba Medical Association. The truth is that pressure by various groups of wage-earners in Winnipeg, especially after the success of the Winnipeg Firefighters Medical scheme, led the Committee on Economics to evolve the plan after much deliberation and close study of schemes in operation elsewhere, such as Ontario Medical Services, the Hollinger Plan, the Michigan Medical Service and others.

Four points in favour of the Manitoba Medical Service are:—

(1) It will provide those in the lower income brackets with an adequate medical service in the Medical Plan at a rate within their power to pay, and it will protect those who elect the lower-priced Surgical Plan against catastrophic illnesses.

(2) It will tend to create stability of economic structure which is of value now, and will be still more value after the war ends.

(3) The scheme will be administered by Manitoba Hospital Service Association which has proved its ability in its three years of operation.

(4) There will be no bad debts.

Extracts from Letter from Major H. M. Edmison January 23, 1942 (Somewhere in England)

I think that practically all our parcels arrived safely and we fared very well indeed.

We had a very good Christmas week which included a mess dinner followed by a dance and a New Year's Eve party in the mess, so that we were kept quite busy. We were also entertained a bit by people living nearby.

I think I told you about the show we were planning. It took place before Christmas and was very successful.

It is a great thing to have something to think about when the day's work is done.

The weather was exceptionally mild up until about two weeks ago, and the grass was quite green, but since then it has been much colder. We have had snow for about ten days now.

Our water pipes have been frozen for about three days, and we haven't been able to get them thawed.

We phoned the plumber but he said he could not do anything as it was still freezing! Just like our milkman last summer who delivered sour milk to us three days in a row and said there was nothing to do about it—nobody could keep milk from going sour in such hot weather. The extremes are always said to be "unusual," and such things are accepted with fortitude as inevitable.

Yesterday Roy and I attacked the accessible portions of the pipes with candles and an electric heater. The heater cord got hot, started the carpet burning and blew out the fuses, putting the house in total darkness. It's a good thing we didn't start a real fire, because the 'phone was out of order, my car was being fixed in the garage and Roy's wasn't running any too well—and of course we had no water.

I haven't much faith in the local fire department either, after seeing them in action one day. I was in the village one day when I heard a bell ringing. Suddenly the butcher dashed out of his shop and ran down the street, then three or four men from different doors all headed in the same direction and disappeared around the next corner. All was quiet for about ten minutes and I had given up wondering what had happened when there was a terrific roar and the fire engine came around the corner, barely moving, and proceeded up the street at the same pace. The "firemen" were changing their clothes, grinning from ear to ear and carrying on conversations with people on the street. Dogs were barking and children running behind. I didn't follow them to see them perform—I'm no Barney Oldfield.

Obituary

Dr. Herbert A. Gordon, a former president of the Manitoba Medical Association, and a veteran of World War I, died at his home in Portage la Prairie on March 31, after a long illness.

Born in a parsonage in Ontario, he came to Manitoba with his parents in 1882. He graduated from Wesley College, Winnipeg, in 1895, and from Manitoba Medical College in 1899. His professional career was centered in Portage la Prairie, where for many years he was superintendent of the Home for Incurables. In the first World War he served with No. 3 Casualty Clearing Station, R.A.M.C., in England, the Dardanelles and France, attaining the rank of major.

He is survived by his widow, two sons and three daughters. A man of the highest integrity, he will be widely mourned.

Personal Notes and Social News

Lieut. W. H. Sparling East, R.C.A.M.C., second son of Rev. and Mrs. Samuel B. East of Jarvis, Ont., was married on April 25th at Sparling United Church, Winnipeg, to Mary S., youngest daughter of Mr. and Mrs. Andrew Wilson, of Moosomin, Sask.

◈ ◈

Dr. and Mrs. Bruce Chown celebrated their 20th wedding anniversary informally at tea hour on Sunday, March 29th.

◈ ◈

Dr. A. B. Houston, son of Mr. and Mrs. A. E. Houston of Calgary, Alta., was married to Mabel, daughter of Mr. and Mrs. A. S. Houston of Winnipeg, in St. George's Church, Crescentwood, on March 28th.

◈ ◈

Dr. Walter Johnstone McCord, youngest son of Mrs. McCord and the late Mr. George McCord of Winnipeg, was married to Nursing Sister Kathleen Gertrude Corke, youngest daughter of Mr. and Mrs. G. B. Corke of Little Britain, Man. The ceremony took place in St. Nicholas Church, Taplow, Bucks, England. Major Gerald Williams and Captain Cherry Bleeks attended.

◈ ◈

Congratulations are being received by Dr. and Mrs. Roman Wengel of 353 Elm Street, on the birth of a son (Peter Magnus) on April 4th, at Winnipeg General Hospital.

◈ ◈

Dr. and Mrs. William Ormond and baby, of Trail, B.C.., were recent visitors to the city.

◈ ◈

Dr. A. E. Jones, son of Dr. and Mrs. E. A. Jones of Winnipeg, is to be married to Sheila Margaret Campbell, niece of Mr. A. S. Campbell, on May 2nd at 4 o'clock in Augustine Church, Winnipeg.

◈ ◈

Dr. A. W. Moody has returned to Winnipeg from Eastern Canada, where he visited Ottawa and Montreal.

◈ ◈

Dr. Ross Mitchell has been re-appointed Manitoba Medical Association representative on the Board of Governors of the Victorian Order of Nurses of Canada, for 1942.

◈ ◈

Dr. and Mrs. Edward Johnson, of Selkirk, Man., are receiving congratulations on the birth of a son.

◈ ◈

Dr. R. O. McDiarmid, of Brandon, has been elected president of the Brandon Golf and Country Club. Dr. Geo. Little is on the board of Executive Directors.

Winnipeg Medical Society

J. C. Hossack — *President*
C. B. Stewart — *Vice-President*

Digby Wheeler — *Past President*
F. G. McGuinness — *Past President*

H. F. Cameron — *Secretary*
David Swartz — *Treasurer*

MEETINGS
Third Friday, each month

Next Meeting
May 15th

MEETINGS
Start exactly at 8:15 p.m.

NOTICE BOARD

The busy months have hurried through the year and in a few days our session will have ended. On the 15th of May your Executive will give you an accounting of their stewardship and will then resign into your hands the honours you conferred upon them a year ago.

It has been an interesting and, on the whole, a successful year. In June we had the privilege of entertaining the Council of the Canadian Medical Association on an evening when the heat of the weather exceeded even the warmth of our reception. In September we heard Drs. Jackson, Adamson, Quong and Chown summarizing the facts of the twin epidemics of Poliomyelitis and Encephalitis. At that meeting 3 candidates were admitted to membership. In October Dr. Menzies, Professor Savage and Professor Wardle spoke on the relationship between animal diseases and human beings. At that meeting 20 candidates became members. November saw the first issue of the Notice Board, and at the meeting, Dr. Elinor Black and Dr. Mindel Cherniak contributed the programme. In November 35 candidates became members. In December we had a special meeting addressed by Surgeon Rear Admiral Gordon Taylor, and a second extra special session to deal with health insurance. The regular meeting was featured by the innovation of presenting certificates to the new life members. The programme dealt with gonadal hormones and the speakers were Prof. Cameron and Drs. Best and Bell. At that meeting 13 candidates were admitted. In January we heard representatives of the armed services. In February, Professor Watson of the University of Minnesota and Professor Gillespie of the University of Alberta spoke at a special meeting. Later in the month, a second special meeting heard Dr. Russell Wilder. In March the speakers were Dr. Chas. Hunter and Dr. Maclean. Dr. Duncan showed several reels of film illustrating the Yukon. During January, February and March, 17 candidates were admitted. The April meeting—just over—completes our scientific programme. It was encouraging to see a full house at every meeting.

We cannot hope that all the members will be present at the Annual Meeting on May 15th. It is to those who will be absent that what follows is especially addressed.

We of the Executive wish to thank you for the honour you did us. It is no mean thing to be singled out to direct the affairs of a large and important society. You laid upon us a responsibility to which we have tried to measure up. If we have succeeded it is because of your help. Your encouragement has made us strive to merit your good opinion and justify your choice. It is not difficult to do well when everyone is a well-wisher; it is easy to make things "go" when everyone is pushing.

"Farewell goes out sighing," and it is only natural that, in saying goodbye to you, there should be some tinge of regret. But "welcome ever smiles" and, with you, we stand ready to welcome and to help the new Executive — the 30th — of our society.

I do not know who will be responsible for this Notice Board in the future. That is for the new president to decide. But I make the suggestion now, that the next issue contain a resumé of the proceedings at the Annual Meeting so that all the members may know what happened during the year.

The programme for May 15th consists of the reports, the election and—the Presidential Address. A little chill runs through me when I realize the close approach of its delivery. The embryo is, at the moment, so small and so ill-formed; the gestation so full of travail that I wonder whether or not it will, like Richard III, come "into this breathing world scarce half made up and that so lamely and unfashionable" that it will end the year with an anti-climax. The title—"I Swear by Apollo," and if I can promise nothing else, I can promise the virtue of brevity.

Department of Health and Public Welfare

"Pre-Natal Care"

We are publishing herewith the first of the essays prepared by the medical students before taking the final examination in Preventive Medicine at the Faculty of Medicine of the University of Manitoba this year. The one for this month is written by Dr. Norman Sloan on the subject "Pre-Natal Care," and reads as follows:

"Not less than half and possibly even more of the Canadian mothers whom we lose annually in child-birth need not have died." This striking statement suggests that there are few social or health problems offering a greater challenge to Canadians today than this problem that is in part health, in part social, in part economic, in its nature and possible solution.

The problem is one of unnecessary death, of unnecessary sickness and ill-health, and of unnecessary destruction of family life through the preventable loss of the young mother in the home, or through her inability to direct it because of ill-health.

The challenge to Canadian effort is therefore a threefold one:

(1) The reduction of maternal deaths from preventable causes.

(2) The elimination and reduction of unnecessary injury, sickness, and invalidism, associated with childbirth.

(3) The reduction of the number of stillbirths and of infant deaths occurring in the immediate neonatal period.

These problems are not the concern of the medical and nursing profession alone, nor can they obviously be the concern of the laity alone. The problems concern all, and their solution must come from the education and intelligent co-operation of the general public, the expectant mother, and the professional groups alike.

The community must be told to what degree it must guarantee facilities and services for the safeguarding of the mother whom it expects to carry on the assurance of a healthy citizenship.

The woman in the home and her husband must be told just how much of their own hopes of healthy, happy parenthood depend upon their intelligent co-operation.

The woman and the husband in the home, and the community that seeks to serve them must know what they have a right to expect in the way of adequate, skilled and conscientious service from the professional groups and facilities, to whose hands ultimately the life of mother and child is entrusted.

And these professional services must be told by those responsible for their training and practice what are to be regarded as minimum standards of adequate and conscientious maternal care.

These standards must include a minimum at least of pre-natal care—since it stands to reason that the timely recognition of, for example, disproportion, malpresentations, early symptoms of toxemia, of heart and lung disease, anemia, and focal sepsis, must if followed by adequate treatment lead to the avoidance of many disasters.

Thus, routine care during the first trimester of pregnancy would be especially directed to anticipate and prevent abortion, or excessive nausea and vomiting. In the second trimester, syphilis, toxemia, and cardiac disease receive special attention. During the last trimester vigilance is maintained for manifestation of toxemia, and attention is directed to the prophylactic care of the breasts, the relief of pressure symptoms, the prevention of premature labor and the recognition of abnormal presentation and the determination of its cause.

It must also be remembered that an important function of pre-natal care is to preserve normal health of body and mind and not to magnify the significance of trifling disorders. Also, the practice of pre-natal supervision affords opportunities for the doctor and the patient to get to know each other—for the doctor to study the patient's personality, and for the patient to derive thereby a degree of reassurance which will enable her to approach her confinement with courage and calmness.

Prenatal supervision should begin as early as possible and should be continuous; the patient should be seen at intervals of a month, and oftener if need be. Consideration will show that the scope of the examination may conceivably range over a large part of medicine and surgery as well as the pathology of pregnancy, labor, and puerperium. The scope and nature of any one antenatal examination will also vary according to the period of gestation reached at the time. All that can be done, therefore, is to give an indication of the general lines to be followed and of the advice to be offered.

At the first examination, a general survey of the patient's past and present general health should be conducted. Name, address, age, number of present pregnancy, date of last normal menstrual period, date of quickening, is noted, as are any previous illnesses, or any former pregnancies and labors. This last is very important, since a history of toxemia or difficulty in a previous delivery, may serve as a warning. Abortions and their cause are recorded.

The state of the present health, esecially in regard to symptoms of cardio-vasculo-renal and pulmonary disease is then determined. Condition of the bowels, presence and nature of vaginal discharges, swelling of feet, hemorrhoids or varicose veins enquired into.

A thorough general physical examination is then carried out, especially noting possible presence of hyperthyroidism, cardiac or pulmonary disease. Breasts are inspected to note development, condition of nipples, etc. Possible foci of infection are looked for, especially in teeth, tonsils, gums or sinuses. Blood pressure, pulse, temperature taken and a Wasserman test performed.

In the early months of pregnancy abdominal examination is made to note size of uterus and to exclude any morbid abdominal conditions. Level of the fundus, uterine souffle, hearing of foetal heart-beat and its position recorded.

At the 36th week, and again at the 38th week, abdominal examination should be made for two reasons:

1. To determine presentation and position.

2. To determine relation of foetal head to pelvis.

Malpresentations may be corrected. Disproportion may be dealt with either by Cesarean section, premature labor, or trial at labor.

Pelvic examination consisting of external pelvimetry and an internal examination including internal pelvimetry should be made early. External measurements to be recorded are: interspinous, intercristal and external conjugate diameters. Their main significance is, that when abnormal, they indicate the need for a very careful examination of the internal measurements of the pelvis, and above all, of the relative size of the foetal head to the pelvis.

By internal examination—done with scrupulous antiseptic and aseptic precautions—the size and shape of the pelvic outlet is noted.

In the later months, X-ray examination may be necessary if abnormal pelvis is suspected.

A careful urinalysis is very important throughout pregnancy. Possible presence of albumen or sugar (in-

dicating possibility of diabetes) are looked for. Urinalysis once a month in the first six months, and weekly in the final trimester is essential.

The patient's weight should be recorded monthly, and oftener if the rate of gain is abnormal, since fluid retention in the tissues, an early sign of toxemia, is shown by rapid weight gain. Increase of weight normally begins with the fourth month, continuing at an average rate of about three pounds per month till the 38th week, total gain being about 20 pounds.

Careful check on hemoglobin is kept to watch for anemia.

This in general concludes the examination, but the date of the next examination should be fixed and the patient told to seek advice immediately in the event of any symptoms such as crampy pain, hemorrhage, edema, headaches, visual disturbances, etc.

Subsequent examinations need not be so comprehensive as the first, but in the last four months special attention should be paid to urinalysis and blood pressure; in the last six weeks, to the presentation and position of the fetus, presence and position of the foetal heart, the relative size of head and pelvis, and mobility or engagement of head.

Advice should also be given in regard to the hygiene of pregnancy and the opportunity taken to encourage the woman that the pregnancy will remain perfectly normal.

Thus, exercise should be taken, since labor is a great muscular feat. The more violent forms of exercise should be avoided. In the second half of pregnancy long journeys over rough roads are to be avoided. Particular care should be taken throughout pregnancy at the times corresponding to the suppressed menstrual periods.

Diet should be adequate; but over-feeding discouraged. Excessive meat throws an extra burden on kidneys, so one serving of meat per day is enough. Fruit, vegetables, and water taken to regulate the bowels and to provide vitamins B, C and E. Milk, butter, cheese, eggs for vitamins A and D and for calcium. If there is any reason to suspect any vitamin deficiency the vitamin concentrates should be supplemented. Vitamin K should be present in sufficient amounts to safeguard against hemorrhage of the newborn. Constipation should be avoided, but only the milder laxatives used.

Very hot or very cold water should not be used in bathing. Vaginal douches may be used up to two weeks before the expected date. Sexual intercourse should not be allowed at the times corresponding to the menstrual periods and in the last two months.

Clothing during pregnancy must avoid any pressure on the breasts, and any constriction at the waist or around the lower limbs. In the later months a well-designed maternity corset gives comfort.

The care of the breasts is important. In the later months the nipples should be drawn out by the fingers, and in the last week or two may be bathed twice a week with eau-de-cologne and water and gently massaged with vaseline, to toughen them. If the breasts are very heavy they can be supported by a suspensory bandage.

Besides the advice given to the mother in respect to herself, she should also be told to attend clinics on infant care and to read on the subject so that she may be acquainted with those problems with which she will inevitably be faced.

These clinics provide one of the chief means in supplying adequate prenatal care. Since the social-economic factor enters inevitably into the problem of adequate pre-natal care, ante-natal clinics should be free. Sir Newman outlines standards which should characterize prenatal clinics as:

(1) The medical officers and nurses in charge should have training and experience in obstetrical work.

(2) Social consultants should be available and freely used.

(3) The clinics should be in premises convenient to the woman, and private.

(4) The physical examination should be thorough and adequate and should include the knowledge of the nutrition and general condition of the women and especially a study and record of blood pressure.

(5) Facilities should be open to the clinic for X-ray and laboratory tests.

(6) Provision should be made for full use of special treatments indicated, e.g., dental conditions, etc.

(7) The clinics should have the sympathetic support of the doctors and mid-wives in the district and intimate association and, where practical, identity of clinic staff with those responsible for attendance at confinement.

(8) There should be co-ordination of prenatal work with the services for the treatment of social disease and special reference from the clinics to special treatment centres.

(9) Provision should exist for ascertaining causes of non-co-operation and attendance among the mothers and every effort made to combat them.

The general public and the mother in the home must be made to realize the fundamental importance of prenatal care, and to demand such from their private physicians; and, in the case of the destitute, to take full advantage of free ante-natal clinics which should be available in as many strategic points in the province as is humanly possible. Campaigns in the press, over the radio, and on the platform should drive home these facts.

There is, too, a group of women in entirely different circumstances who usually fail to receive adequate prenatal care. Usually the difficulty is not a question of good or bad obstetrical care or inability to provide for a physician's services, but rather the inaccessibility of assistance at all during this time. This is the condition which many women in rural districts must face, especially in the extreme north and west where pioneer conditions prevail. Many children are born with no other attendant than the husband or a neighbor.

The problem of these women is difficult, but a solution seems available—thusly:

(a) Establishment of a rural nursing service centering at the county seat, with nurses especially trained to discern the danger signs of pregnancy.

(b) An accessible centre for maternal and infant welfare at which mothers may obtain simple information as to the proper care of themselves during pregnancy as well as of their babies.

(c) A community hospital with provisions for maternity cases; for proper care of abnormal cases and of normal cases where it is convenient for women to leave their homes for confinement.

(d) Skilled attendants at confinement available to each woman.

In conclusion, it may be said that the advantages of adequate pre-natal care have been shown to be:—

(1) A reduction in maternal morbidity.
(2) A reduction in maternal mortality.
(3) A reduction in infant morbidity.
(4) A reduction in infant mortality.

COMMUNICABLE DISEASE REPORT

February 26—March 25, 1942

Measles: Total 917—Winnipeg 397, Portage la Prairie City 140, Brandon 54, Lansdowne 40, Fort Garry 32, St. James 31, Virden Town 23, Portage la Prairie Rural 20, Wallace 13, St. Vital 12, St. Boniface City 9, Rosser 8, Sifton 8, Transcona Town 8 Morden Town 6 Unorganized 5, Cypress South 4, Neepawa Town 4, Glenella 3, Kildonan West 3, Oakland 3, Stanley 3, Tuxedo 3, Pipestone 2, Winchester 2, Woodworth 2 Beausejour Town 1, Brooklands Village 1, Carman Town 1, Cornwallis 1, Daly 1, DeSalaberry 1, Glenwood 1, Hamiota Rural 1, Hamiota Village 1, Norfolk North 1, Oak Lake Town 1, Pembina 1 Springfield 1, Westbourne 1, Whitewater 1. (Late Reported: Por-

tage la Prairie City 52, Transcona 6, Brandon 4, Unorganized 2, Gimli 1, Norfolk North 1, St. Vital 1.)

Mumps: Total 576—Winnipeg 199, Brandon City 119, Fort Garry 47, Selkirk Town 45, Tuxedo 41, Kildonan West 25, Virden Town 14, Minnedosa Town 9, Hamiota Rural 8, Hamiota Village 7, Dauphin Town 7, Portage la Prairie Rural 6, Whitehead 6, Portage la Prairie City 5, Wallace 5, St. James 4, Transcona Town 3, Brenda 2, Daly 2, Melita Town 2, Napinka 2, St. Boniface 2, Arthur 1, Beausejour 1, Blanshard 1, Cartier 1, Clanwilliam 1, Gilbert Plains Rural 1, Kildonan West 1, Lac du Bonnet 1, Morris Rural 1, Rockwood 1, St. Paul West 1, Tache 1. (Late Reported: Edward 3, Brandon 1.)

Chickenpox: Total 224—Winnipeg 100, St. Boniface 32, Brandon 29, Unorganized 18, Brooklands Village 9, Kildonan East 7, Lansdowne 4, Pembina 4, Albert 2, Arthur 2, Portage la Prairie City 2, Edward 1, Grandview Rural 1, Kildonan West 1, Lac du Bonnet 1, McCreary 1, Melita Town 1, North Norfolk 1, Oakland 1, Portage la Prairie Rural 1, Tuxedo 1. (Late Reported: Brandon 5.)

Scarlet Fever: Total 222—Brandon 73, Fort Garry 40, Winnipeg 35, Tuxedo 21, Strathcona 7, Portage la Prairie City 5, St. Boniface 4, Portage la Prairie Rural 3, Rosser 3, Dauphin Town 2, Kildonan East 2, Miniota 2, Morden Town 2, Rivers Town 2, Brooklands Village 1, DeSalaberry 1, Kildonan West 1, Lawrence 1, Macdonald 1, Neepawa Town 1, Selkirk Town 1, Stanley 1, St. Andrews 1, St. James 1, St. Vital 1. (Late Reported: Strathcona 8, Fort Garry 1, Winchester 1.)

Tuberculosis: Total 45—Winnipeg 18, St. Clements 2, Unorganized 2, Tuxedo 1, Victoria 1, Arthur 1, Bifrost 1, Dauphin Town 1, Flin Flon 1, Fort Garry 1, Gimli Rural 1, Glenella 1, Glenwood 1, Grey 1, Lac du Bonnet 1, Neepawa Town 1, Portage la Prairie Rural 1, Rhineland 1, Rockwood 1, Selkirk Town 1, Siglunes 1, Springfield 1, St. Boniface City 1, St. James 1, St. Vital 1, Turtle Mountain 1.

German Measles: Total 34—Brandon 16, Tuxedo 7, Fort Garry 2, St. James 2, Norfolk North 1, Pipestone 1, Portage la Prairie Rural 1, Portage la Prairie City 1, St. Boniface City 1. (Late Reported: Brandon 2.)

Whooping Cough: Total 29—Flin Flon 9, Winnipeg 3, Kildonan West 2, Fort Garry 1, Gilbert Plains Rural 1, Gilbert Plains Village 1, St. Boniface City 1. (Late Reported: Flin Flon 10, Transcona 1.)

Diphtheria: Total 19—Winnipeg 10, Fort Garry 3, Cartier 1, Portage la Prairie Rural 1, Tache 1, Tuxedo 1, Unorganized 1. (Late Reported: Lawrence 1.)

Lobar Pneumonia: Total 18—Brandon 3, Glenwood 2, Whitewater 2, Blanshard 1, Souris Town 1, Tache 1, Virden Town 1, Wallace 1. (Late Reported: Glenwood 1, Fort Garry 1, Minitonas 1, Portage la Prairie Rural 1, St. Boniface 1, Stanley 1.)

Influenza: Total 13—Brandon 3, Elton 1, Glenwood 1, Hamiota Rural 1, Portage la Prairie City 1, Souris Town 1. (Late Reported: Mossey River 2, Unorganized 1, Minto 1, St. Boniface 1.)

Erysipelas: Total 8—Winnipeg 2, Westbourne 1, Brandon 1, Hanover 1, Kildonan North 1, Portage la Prairie City 1, St. James 1.

Septic Sore Throat: Total 5—Brandon 3, Hanover 1, Whitewater 1.

Anterior Poliomyelitis: Total 3—Kildonan East 1. (Late Reported: Kildonan East 1, Brandon 1.)

Diphtheria Carriers: Total 3—Portage la Prairie Rural 1, Winnipeg 1. (Late Reported: Unorganized 1.)

Meningococcal Meningitis: Total 2— St. Boniface 1, Winnipeg 1.

Encephalitis: Total 1—(Late Reported: Assiniboia 1.)

Puerperal Septicaemia: Total 1— Portage la Prairie City 1.

Trachoma: Total 1—Tuxedo 1.

Tetanus: Total 1—(Late Reported: Rosedale 1.)

Venereal Disease: Total 177— Gonorrhoea 91, Syphilis 86.

DEATHS FROM COMMUNICABLE DISEASE
February, 1942

URBAN—Cancer 34, Pneumonia Lobar 8, Pneumonia (other forms) 8, Influenza 6, Tuberculosis 5, Syphilis 3, Dysentery 1, Measles 1, Scarlet Fever 1. Other deaths under one year 28. Other deaths over one year 136. Stillbirths 20. Total 251.

RURAL—Cancer 25, Tuberculosis 11, Pneumonia Lobar 7, Pneumonia (other forms) 7, Influenza 3, Meningitis 1, Dysentery 1, Syphilis 1. Other deaths under one year 25. Other deaths over one year 132. Stillbirths 7. Total 220.

INDIAN—Tuberculosis 8, Pneumonia Lobar 2, Pneumonia (other forms) 3, Cancer 1, Influenza 1. Other deaths under one year 1. Other deaths over 1 year 1. Stillbirths 2. Total 19.

1941 Registrations received in February, 1942.

RURAL—Tuberculosis 3. Other deaths under 1 year 2. Other deaths over one year 7. Stillbirths 4. Total 16.

URBAN— Cancer 1. Other deaths over one year 2. Total 3.

INDIAN—Tuberculosis 2. Other deaths under 1 year 2. Other deaths over one year 1. Total 5.

DISEASES	Manitoba Feb. 26-Mar. 25	Ontario Feb. 22-Mar. 21	Saskatchewan Feb. 22-Mar. 21	Minnesota Feb. 22-Mar. 21	North Dakota Feb. 22-Mar. 21
Anterior Poliomyelitis	1	1		3	1
Meningococcal Meningitis	2	23	1	1	
Chickenpox	219	968	133	329	
Diphtheria	18	13	3	15	2
Erysipelas	8	7	7	6	
Influenza	8	39	34	12	20
Measles	850	542	145	3303	311
German Measles	32	211	76		
Mumps	572	470	745		
Puerperal Fever	1				
Scarlet Fever	212	1333	154	353	108
Septic Sore Throat	5	15	22		
Smallpox			1	2	
Trachoma	1				
Tuberculosis	45	181	32	29	38
Typhoid Fever		5	1	3	
Undulant Fever		6			1
Whooping Cough	18	172	20	167	49
Diphtheria Carriers	2		2		
Gonorrhoea	81	394			14
Syphilis	61	332			38

Saskatchewan and Minnesota do not report venereal diseases.

Measles, Mumps and Scarlet Fever are still on the increase in Manitoba during this period. Scarlet Fever and other streptococcal infections of a similar nature should be especially guarded against.

One case of Smallpox is reported in Saskatchewan and two in Minnesota. Now is the best time to do vaccination against Smallpox, toxoiding against Diphtheria and to immunize against Scarlet Fever. How about those infants and pre-school children? Are they all protected?